

Table 3-12
WATER QUALITY OBJECTIVES FOR CERTAIN WATER BODIES
LAKE TAHOE HYDROLOGIC UNIT

See Fig. 3-6	Surface Waters	Objective (mg/L except as noted) ^{1,2}						
		TDS	Cl	SO ₄	B	N	P	Fe
1	Lake Tahoe	60 65	3.0 4.0	1.0 2.0	0.01 -	0.15 -	0.008 -	--
2	Fallen Leaf Lake	50 -	0.30 0.50	1.3 1.4	0.01 0.02	See Table 3-13 for additional objectives		
3	Griff Creek	80 -	0.40 -	--	--	0.19 -	0.010 -	0.03 -
4	Carnelian Bay Creek	80 -	0.40 -	--	--	0.19 -	0.015 -	0.03 -
5	Watson Creek	80 -	0.35 -	--	--	0.22 -	0.015 -	0.04 -
6	Dollar Creek	80 -	0.30 -	--	--	0.16 -	0.030 -	0.03 -
7	Burton Creek	90 -	0.30 -	--	--	0.16 -	0.015 -	0.03 -
8	Ward Creek	70 85	0.30 0.50	1.4 2.8	--	0.15 -	0.015 -	0.03 -
9	Blackwood Creek	70 90	0.30 -	--	--	0.19 -	0.015 -	0.03 -
10	Madden Creek	60 -	0.10 0.20	--	--	0.18 -	0.015 -	0.015 -
11	McKinney Creek	55 -	0.40 0.50	--	--	0.19 -	0.015 -	0.03 -
12	General Creek	50 90	1.0 1.5	0.4 0.5	--	0.15 -	0.015 -	0.03 -
13	Meeks Creek	45 -	0.40 -	--	--	0.23 -	0.010 -	0.07 -
14	Lonely Gulch Creek	45 -	0.30 -	--	--	0.19 -	0.015 -	0.03 -
	continued...							

Table 3-12 (continued)
WATER QUALITY OBJECTIVES FOR CERTAIN WATER BODIES
LAKE TAHOE HYDROLOGIC UNIT

See Fig. 3-6	Surface Waters	Objective (mg/L except as noted) ^{1,2}						
		TDS	Cl	SO ₄	B	N	P	Fe
15	Eagle Creek	<u>35</u> -	<u>0.30</u> -	--	--	<u>0.20</u> -	<u>0.010</u> -	<u>0.03</u> -
16	Cascade Creek	<u>30</u> -	<u>0.40</u> -	--	--	<u>0.21</u> -	<u>0.005</u> -	<u>0.01</u> -
17	Tallac Creek	<u>60</u> -	<u>0.40</u> -	--	--	<u>0.19</u> -	<u>0.015</u> -	<u>0.03</u> -
18	Taylor Creek	<u>35</u> -	<u>0.40</u> <u>0.50</u>	--	--	<u>0.17</u> -	<u>0.010</u> -	<u>0.02</u> -
19	Upper Truckee River	<u>55</u> <u>75</u>	<u>4.0</u> <u>5.5</u>	<u>1.0</u> <u>2.0</u>		<u>0.19</u> -	<u>0.015</u> -	<u>0.03</u> -
20	Trout Creek	<u>50</u> <u>60</u>	<u>0.15</u> <u>0.20</u>	--	--	<u>0.19</u> -	<u>0.015</u> -	<u>0.03</u> -

¹ Annual average value/90th percentile value.

² Objectives are as mg/L and are defined as follows:

- B Boron
- Cl Chloride
- SO₄ Sulfate
- Fe Iron, Total
- N Nitrogen, Total
- P Phosphorus, Total
- TDS Total Dissolved Solids (Total Filterable Residues)

Table 3-13
WATER QUALITY OBJECTIVES FOR CERTAIN WATER BODIES
FALLEN LEAF LAKE, LAKE TAHOE HYDROLOGIC UNIT

Constituent	Objective (See Fig. 3-6, location 2)
pH ^a	6.5 - 7.9
Temperature ^b	Hypolimnion - ≤15°C Bottom (105m) - ≤7.5°C at no time shall water be increased by more than 2.8°C (5°F).
Dissolved oxygen ^c	% saturation above 80% and DO >7 mg/L except if saturation exceeds 80% DO at bottom (105m) > 6mg/L
Total nitrogen ^d	0.087 ^e /0.114 ^f /0.210 ^g
Dissolved inorganic - N ^h	0.007 / 0.010 / 0.023
Total phosphorus	0.008 / 0.010 / 0.018
Soluble reactive - P	0.001 / 0.002 / 0.009
Soluble reactive iron	0.004 / 0.005 / 0.012
Total reactive iron	0.005 / 0.007 / 0.030
Chlorophyll-a ^{ij}	0.6 / 0.9 / 1.5
Clarity	
- Secchi depth ^k	18.5 / 16.0 ^l / 13.6 ^m
- Vertical extinction coefficient	0.146 / 0.154 / 0.177 ⁿ
Phytoplankton cell counts ^o	219 / 280 / 450

^a 0.5 units above and 0.5 units below 1991 maximum and minimum values. Also reflects stability of this constituent throughout the year.

^b Based on 1991 data. Indicates that if temperature in the hypolimnion during the summer exceeds 15°C or if the water at 105m exceeds 7.5°C this would constitute a significant change from existing conditions. Unless there is a anthropogenic source of thermal effluent, which does not currently exist, changes in water temperature in Fallen Leaf Lake are natural.

^c Objectives apply at any time during the defining period.

^d Based on coldwater habitat protection and 1991 data base. The need for an objective for the bottom (105m) results from the desire to control primary productivity and deposition of organic matter on the bottom. A decline in bottom DO to below 6 mg/L would indicate a fundamental shift in the trophic state of Fallen Leaf Lake.

^e Because of the similarity between the mid-lake and nearshore sites, Fallen Leaf Lake objectives for N, P and Fe are based on the combined mid-lake 8 m and 45 m, and nearshore 8 m concentrations. Units are mg N/L, mg P/L and mg Fe/L.

^f Mean annual concentration (May - October) unless otherwise noted.

^g 90th percentile value unless otherwise noted.

^h Maximum allowable value; 1.5 times the maximum 1991 value. No single measurement should exceed this value unless otherwise noted.

ⁱ DIN = $\text{NO}_3 + \text{NO}_2 + \text{NH}_4$

^j Corrected for phaeophytin degradation pigments.

^k Units are µg chl-a/L.

^l Units are meters.

^m 10th percentile since clarity increases with increasing Secchi depth.

ⁿ Represents 15% loss of clarity from 10th or 90th percentile value.

^o Calculated in the photic zone between 1 m below surface to 35 m. Units are per meter.

^o Units are cells per milliliter.

Figure 3-6
WATER QUALITY OBJECTIVES FOR CERTAIN WATER BODIES
LAKE TAHOE HYDROLOGIC UNIT

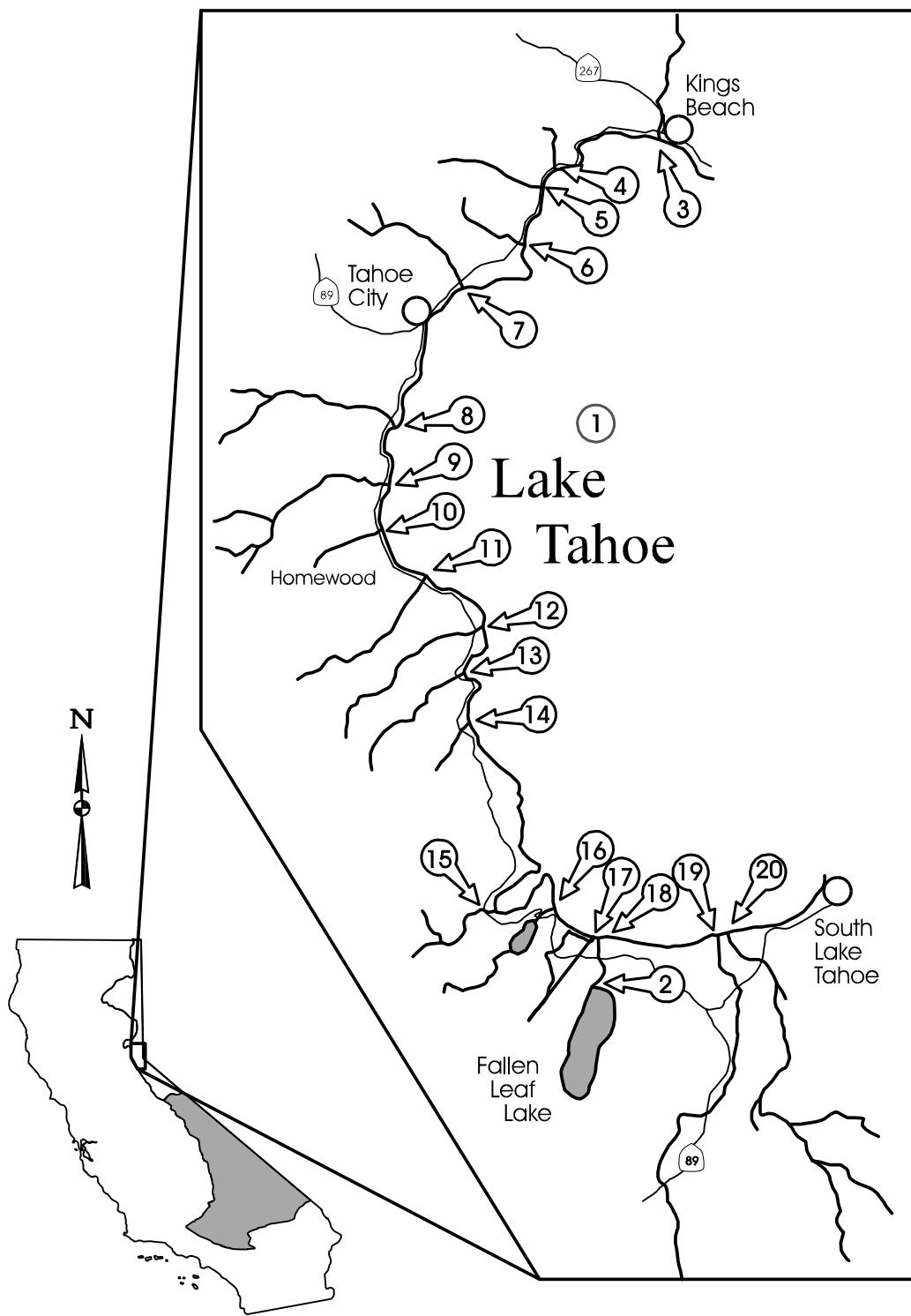


Table 3-14
WATER QUALITY OBJECTIVES FOR CERTAIN WATER BODIES
EAST & WEST FORK CARSON RIVER HYDROLOGIC UNITS

See Fig. 3-7	Surface Waters	Objective (mg/L except as noted) ⁴								
		TDS	Cl	SO ₄	Total P	B	% Na	Total N	TKN	NO ₃ -N
1	West Fork Carson River at Woodfords ¹	55	1.0	2.0	0.02	0.02	20	0.15	0.13	0.02
2	West Fork Carson River at Stateline ¹	70	2.5	2.0	0.03	0.02	20	0.25	0.22	0.03
3	Indian Creek Res. ¹	305	24	-	0.04	-	-	4.0	-	-
4	East Fork Carson River ²	80 100	4.0 6.0	4.0 8.0	0.02 0.03	0.12 0.25	25 30	0.20 0.30	-	-
5	Bryant Creek Basin ^{2,3}	140 200	15 25	35 50	0.02 0.03	0.20 0.50	- 50	0.20 0.30	-	-

¹ Values shown are mean of monthly mean for the period of record.

² Annual average value/90th percentile value.

³ In addition, the following numerical water quality objectives shall apply specifically to surface waters of the Bryant Creek Basin:

Parameter	Maximum Value (mg/l except as noted)
Turbidity (NTU)	15
Alkalinity, total as CaCO ₃	70 (minimum)
Acidity, total as CaCO ₃	10
Dissolved Iron	0.5
Manganese	0.5
Color, PCu	15
Aluminum	0.1
Copper	0.02
Arsenic	0.05

⁴ Objectives are as mg/L and are defined as follows:

B	Boron	NO ₃ -N	Nitrogen as Nitrate
Cl	Chloride	TKN	Nitrate, Total Kjeldahl
N	Nitrogen, Total	P	Phosphorus, Total
% Na	Sodium, Percent		

$$\frac{Na}{Na + Ca + Mg + K} \times 100 = \% Na$$

Na, Ca, Mg, and K expressed as milliequivalents per liter (meq/L) concentrations.

SO ₄	Sulfate
TDS	Total Dissolved Solids (Total Filterable Residue)
SO ₄	Sulfate
TDS	Total Dissolved Solids (Total Filterable Residue)

Figure 3-7
WATER QUALITY OBJECTIVES FOR CERTAIN WATER BODIES
CARSON RIVER HYDROLOGIC UNITS

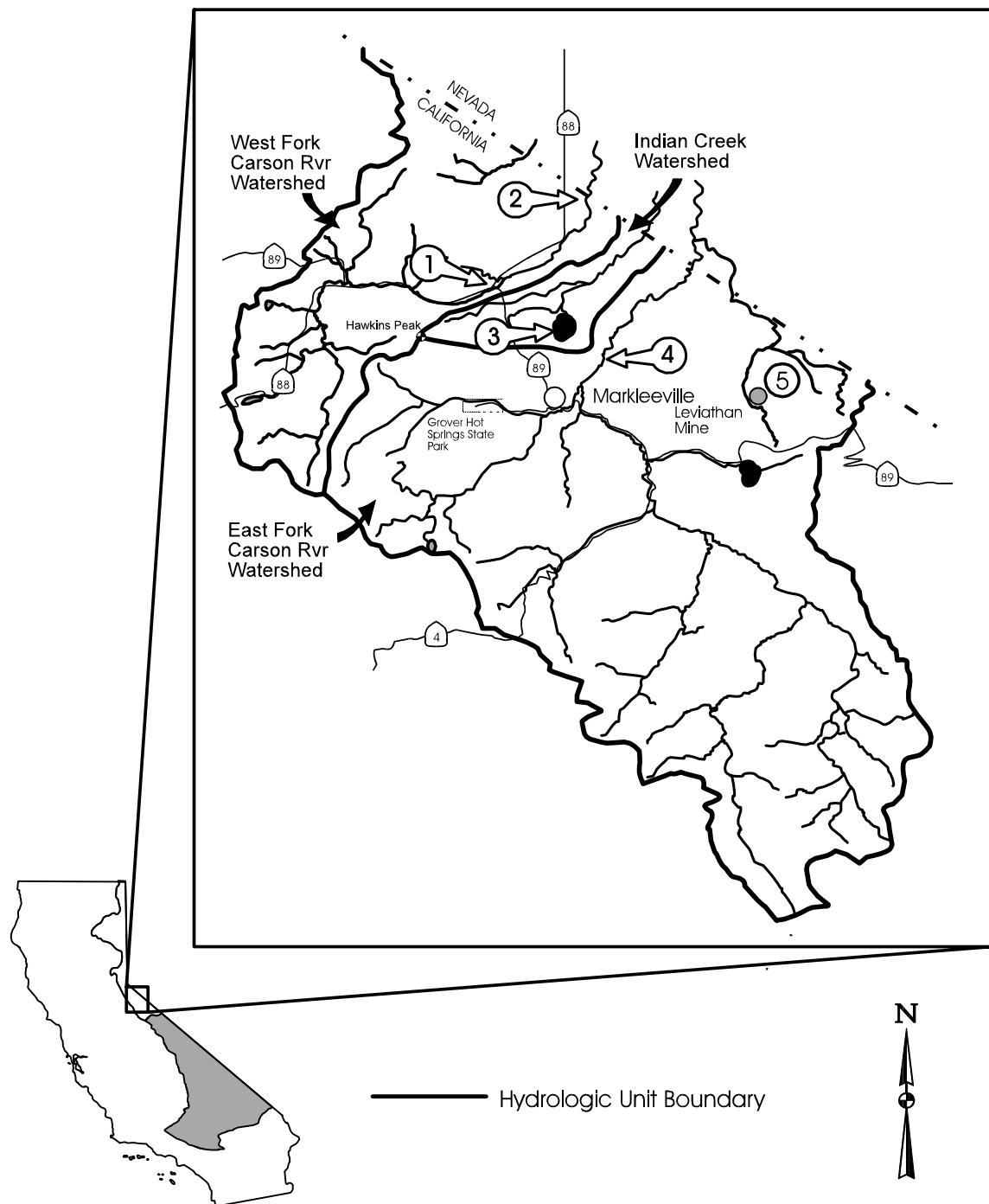


Table 3-15
WATER QUALITY OBJECTIVES FOR CERTAIN WATER BODIES
WEST & EAST WALKER RIVER HYDROLOGIC UNITS

See Fig. 3-8	Surface Waters	Objective (mg/L except as noted) ^{1,2}						
		TDS	Cl	SO ₄	% Na	B	Total N	Total P
1	Topaz Lake	<u>90</u> 105	<u>4</u> 7	-	<u>25</u> 30	<u>0.10</u> 0.20	<u>0.10</u> 0.30	<u>0.05</u> 0.10
2	West Walker River at Coleville	<u>60</u> 75	<u>3.0</u> 5.0	-	<u>25</u> 30	<u>0.10</u> 0.20	<u>0.20</u> 0.40	<u>0.01</u> 0.02
3	East Walker River at Bridgeport	<u>145</u> 160	<u>4.0</u> 8.0	-	<u>30</u> 35	<u>0.12</u> 0.25	<u>0.50</u> 0.80	<u>0.06</u> 0.10
4&5	Robinson Creek & all other tributaries above Bridgeport Valley	<u>45</u> 70	<u>2.0</u> 4.0	-	-	-	<u>0.05</u> 0.10	<u>0.02</u> 0.03

¹ Annual Average value/90th Percentile Value

² Objectives are as mg/L and are defined as follows:

B	Boron
Cl	Chloride
N	Nitrogen, Total
P	Phosphorus, Total
% Na	Sodium, Percent

$$\frac{Na \cdot 100}{Na + Ca + Mg + K} = \% Na$$

(Na, Ca, Mg, K expressed as milliequivalents per liter or meq/L concentration)

SO₄
TDS

Sulfate
Total Dissolved Solids (Total Filterable Residue)

Figure 3-8
WATER QUALITY OBJECTIVES FOR CERTAIN WATER BODIES
WALKER RIVER HYDROLOGIC UNITS

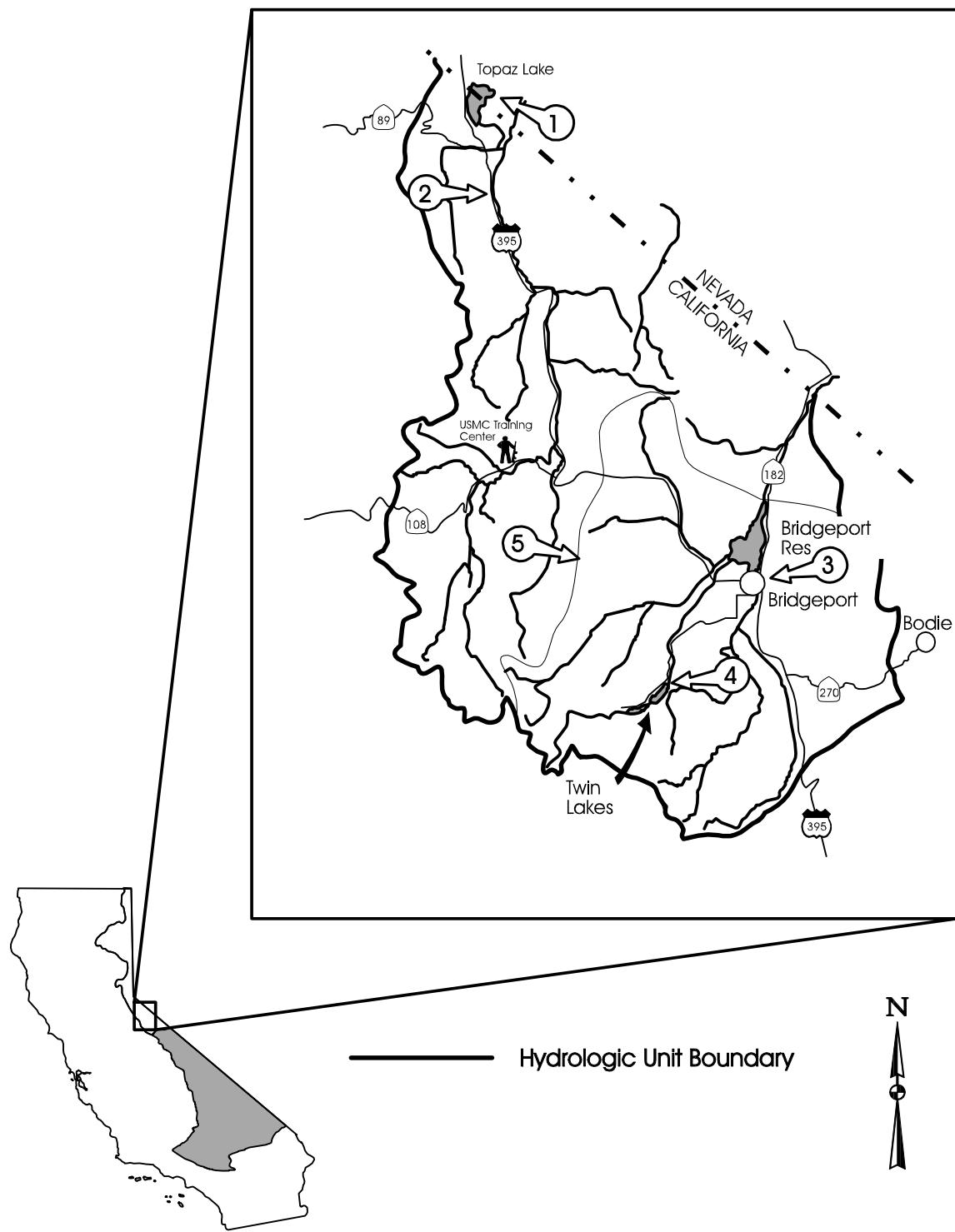


Table 3-16
WATER QUALITY OBJECTIVES FOR CERTAIN WATER BODIES
MONO HYDROLOGIC UNIT

See Fig. 3-9	Surface Waters	Objective (mg/L) ^{1,2}							
		TDS	Cl	SO ₄	F	B	NO ₃ -N	Total N	PO ₄
1	Mono Lake	<u>76,000</u> 80,700	<u>17,700</u> 18,000	<u>11,000</u> 12,000	<u>48</u> 52	<u>348</u> 355	<u>37</u> 47	-	<u>66</u> 75
2	June Lake	<u>200</u> 225	-	-	-	-	-	<u>0.3</u> 0.5	<u>0.06</u> 0.08
3	Reversed Creek (Gull Lake Inlet)	<u>130</u> 160	-	-	-	-	<u>0.1</u> 0.1	<u>0.4</u> 1.0	<u>0.24</u> 0.34
4	Gull Lake	<u>120</u> 140	-	-	-	-	-	<u>0.3</u> 0.8	<u>0.11</u> 0.17
5	Reversed Creek (Silver Lake inlet)	<u>100</u> 130	-	-	-	-	<u>0.1</u> 0.1	<u>0.2</u> 0.4	<u>0.16</u> 0.35
6	Rush Creek (S.C.E. inlet)	<u>41</u> 60	-	-	-	-	<u>0.1</u> 0.1	<u>0.1</u> 0.2	<u>0.02</u> 0.07
7	Silver Lake	<u>45</u> 60	-	-	-	-	-	<u>0.1</u> 0.2	<u>0.06</u> 0.09
8	Rush Creek (Grant Lake inlet)	<u>58</u> 70	-	-	-	-	<u>0.1</u> 0.1	<u>0.2</u> 0.2	<u>0.07</u> 0.09
9	Grant lake	<u>37</u> 46	<u>2.0</u> 4.0	<u>4.0</u> 8.0	<u>0.10</u> 0.20	<u>0.05</u> 0.08	-	<u>0.4</u> 0.9	<u>0.07</u> 0.15

¹ Annual average value/90th Percentile Value

² Objectives are as mg/L and are defined as follows:

B	Boron
Cl	Chloride
F	Fluoride
N	Nitrogen, Total
NO ₃ -N	Nitrogen as Nitrate
SO ₄	Sulfate
PO ₄	Dissolved Orthophosphate
TDS	Total Dissolved Solids (Total Filterable Residue)

Figure 3-9
WATER QUALITY OBJECTIVES FOR CERTAIN WATER BODIES
MONO HYDROLOGIC UNIT

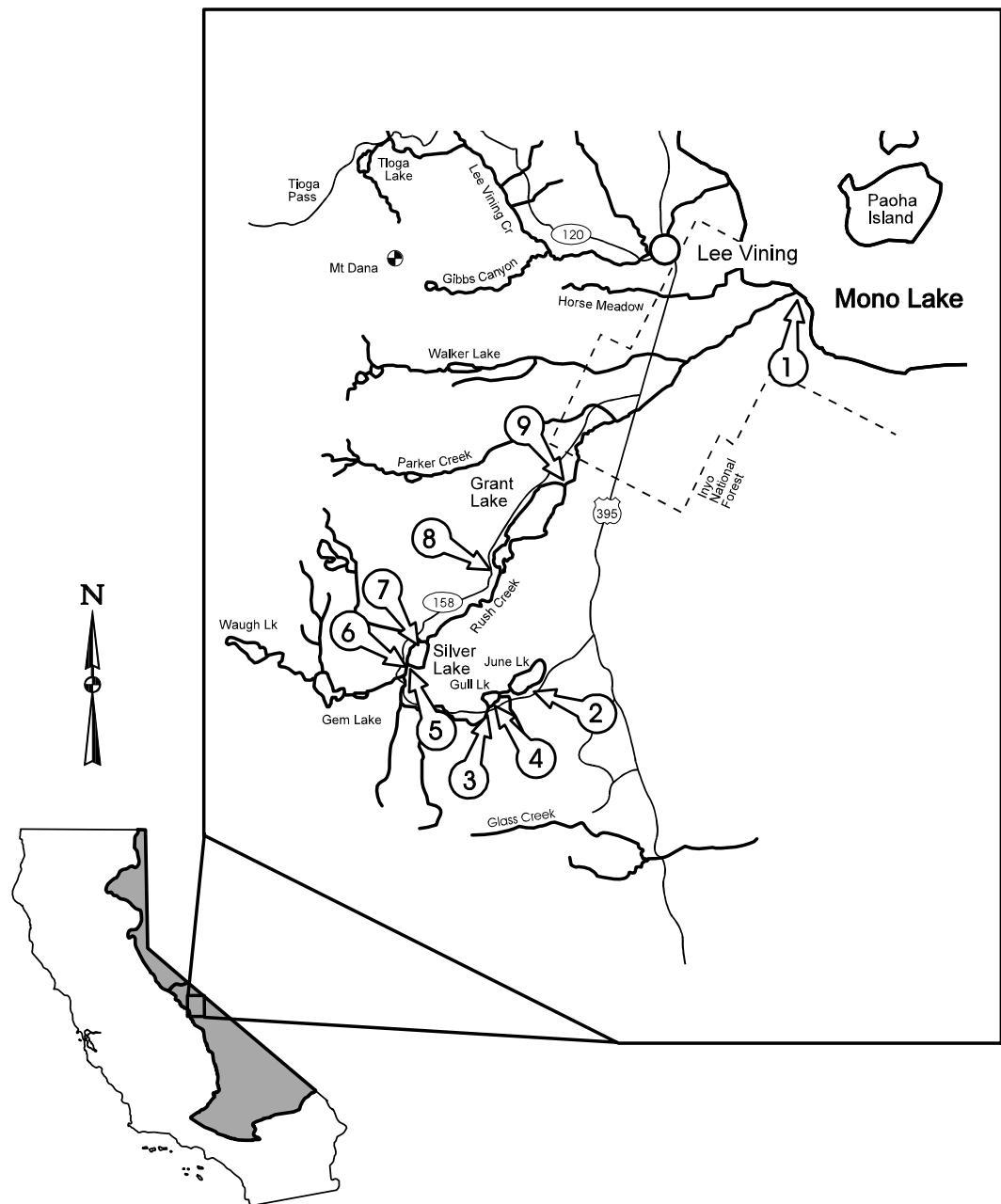


Table 3-17
WATER QUALITY OBJECTIVES FOR CERTAIN WATER BODIES
OWENS HYDROLOGIC UNIT

Table 3-17 (continued)
WATER QUALITY OBJECTIVES FOR CERTAIN WATER BODIES
OWENS HYDROLOGIC UNIT

See Fig. 3-10	Surface Waters	Objective (mg/L) ^{1,2}							
		TDS	Cl	SO ₄	F	B	NO ₃ -N	Total N	PO ₄
18	South Lake	12 20	3.7 4.3	-	0.10 0.10	0.02 0.02	0.1 0.1	0.2 0.4	0.03 0.04
19	Bishop Creek (Intake 2)	27 29	1.9 3.0	-	0.15 0.15	0.02 0.02	0.1 0.2	0.1 0.4	0.05 0.09
20	Bishop Creek (at Hwy 395)	59 105	2.4 6.0	7.2 12.0	0.12 0.30	0.04 0.10	0.5 0.9	0.7 1.0	0.09 0.18
21	Big Pine Creek (at Hwy395)	55 93	2.0 4.0	6.0 10.0	0.06 0.20	0.03 0.07	0.6 0.9	0.7 1.0	0.03 0.04
22	Fish Springs (above Hatchery)	174 219	-	-	-	-	0.7 0.8	0.8 1.0	0.17 0.23
23	Owens River (Tinemaha River Outlet)	207 343	17.9 42.0	26.8 59.0	0.57 0.90	0.61 1.50	0.6 1.1	0.9 1.5	0.32 0.56
24	Black Rock Springs	114 123	6.3 8.0	24.0 27.0	0.54 0.60	0.11 0.14	0.2 0.4	0.7 0.9	0.13 0.20
25	Oak Creek (above hatchery)	72 88	1.8 1.8	-	0.14 0.14	0.06 0.06	0.1 0.2	0.2 0.4	0.08 0.12
26	Independence Creek (gaging station)	80 114	6.5 11.0	15.0 23.0	0.10 0.20	0.12 0.26	0.4 0.8	0.6 1.0	0.05 0.09
27	Hogback Creek	45 48	2.5 3.6	-	0.10 0.10	0.03 0.06	0.2 0.3	0.4 0.6	0.02 0.04
28	Lone Pine Creek (Whitney Portal)	22 25	0.5 1.1	-	0.10 0.10	0.05 0.07	0.3 0.5	0.4 0.6	0.02 0.04
29	Lone Pine Creek (at gaging station)	56 81	4.0 8.0	4.6 7.0	0.12 0.20	0.06 0.11	0.3 0.4	0.4 0.5	0.01 0.01
30	Cottonwood Creek (Los Angeles Aqueduct)	66 91	1.9 4.0	7.4 11.0	0.20 0.40	0.05 0.10	0.1 0.4	0.4 0.6	0.11 0.17
31	Haiwee Reservoir (outlet)	215 315	19.5 38.0	27.0 62.0	0.60 0.90	0.56 0.91	0.5 1.0	0.8 1.5	0.23 0.36

¹ Annual average value/90th Percentile Value.

² Objectives are as mg/L and are defined as follows:

B	Boron
Cl	Chloride
F	Fluoride
N	Nitrogen, Total
NO ₃ -N	Nitrogen as Nitrate
SO ₄	Sulfate
PO ₄	Dissolved Orthophosphate
TDS	Total Dissolved Solids (Total Filterable Residue)

Figure 3-10
WATER QUALITY OBJECTIVES FOR CERTAIN WATER BODIES
OWENS HYDROLOGIC UNIT

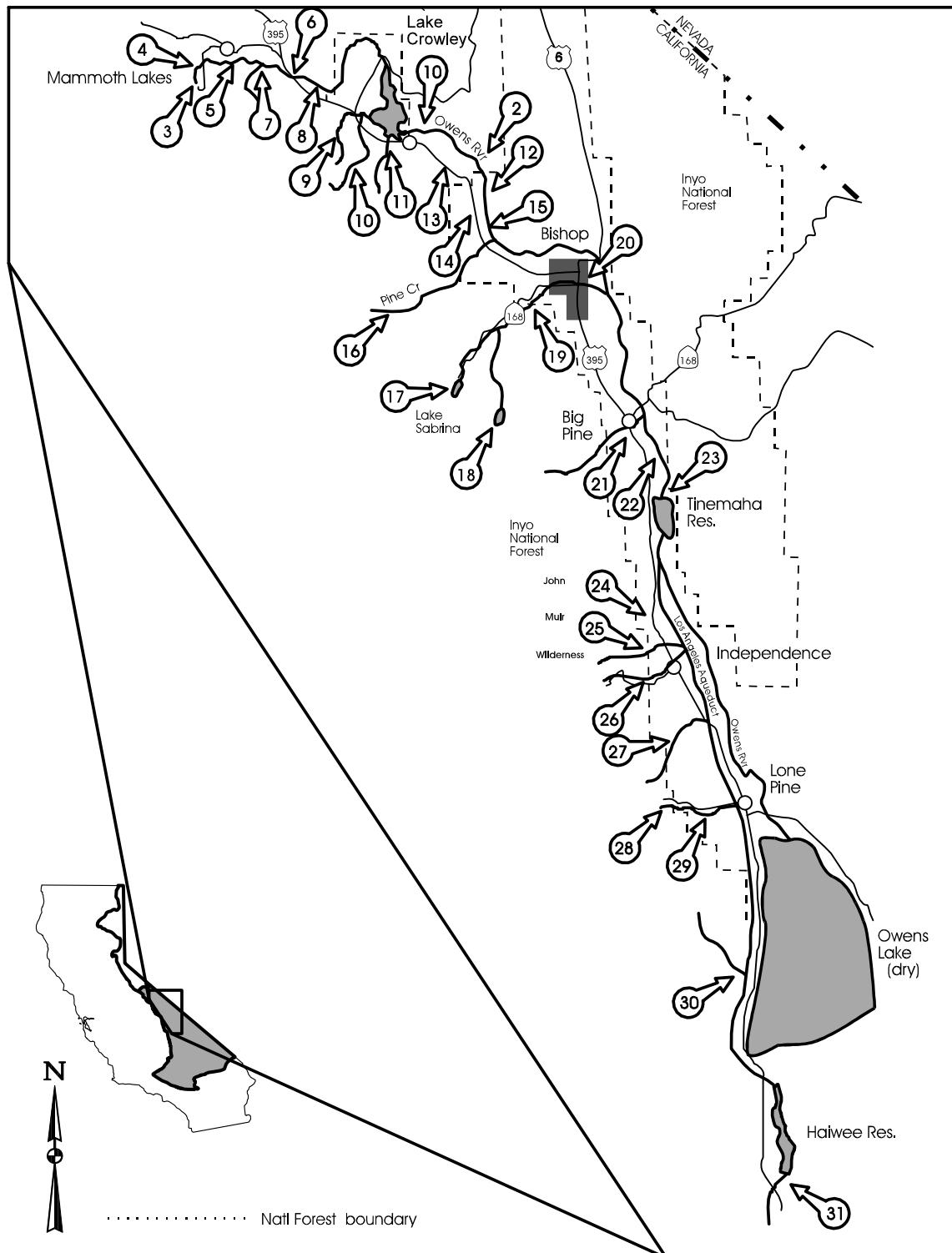


Table 3-18
WATER QUALITY OBJECTIVES FOR CERTAIN WATER BODIES
PINE CREEK, INYO COUNTY

Fig. 3-11	Surface Waters	Objective (mg/L except as noted) ^{1,2}									
		TDS	Cl	SO ₄	F	B	NO ₃ -N	N	NH ₃	P	
1	R-1 (above US Tungsten Corp Mine)	50	3	13	-	-	0.3	0.9	0.01	0.04	
2	R-5 (at LADWP weir above Rovanna)	200	7	100	1.25	0.1	0.5	1.5	0.01	0.04	

¹ Values shown are mean of monthly mean for the period of record.

² Objectives are as mg/L and are defined as follows:

B	Boron	NO ₃ -N	Nitrogen as Nitrate
Cl	Chloride	P	Phosphorus, Total
F	Fluoride	SO ₄	Sulfate
N	Nitrogen, Total	TDS	Total Dissolved Solids (Total Filterable Residue)
NH ₃	Ammonia, Un-ionized		

Figure 3-11
WATER QUALITY OBJECTIVES FOR
CERTAIN WATER BODIES
PINE CREEK, INYO COUNTY

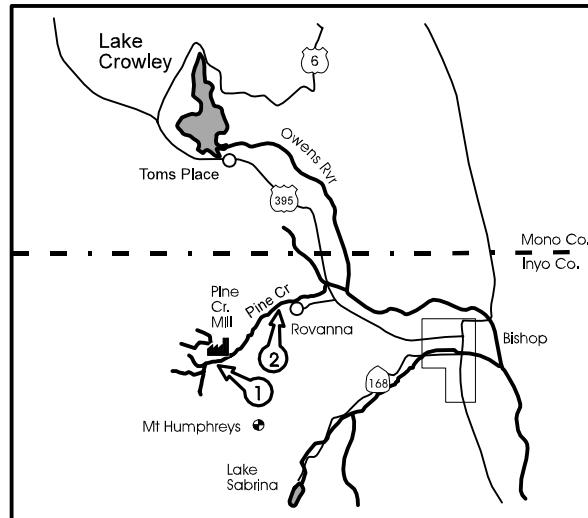


Table 3-19
WATER QUALITY OBJECTIVES FOR CERTAIN WATER BODIES
ANTELOPE HYDROLOGIC UNIT

Fig. 3-12	Surface Waters	Objective (mg/L) ^{1,2}							
		TDS	Cl	SO ₄	F	B	NO ₃ -N	Total N	PO ₄
1	Lake Palmdale	460 585	50.0 68.0	100.0 121.0	0.80 1.00	0.13 0.15	-	-	-
2	Little Rock Reservoir	176 180	12.5 20.0	16.5 19.0	0.29 0.38	0.03 0.05	0.4 0.7	-	-

¹ Annual average value/90th Percentile Value

² Objectives are as mg/L and are defined as follows:

B	Boron	SO ₄	Sulfate
Cl	Chloride	PO ₄	Dissolved Orthophosphate
F	Fluoride	TDS	Total Dissolved Solids (Total Filterable Residue)
N	Nitrogen, Total		
NO ₃ -N	Nitrogen as Nitrate		

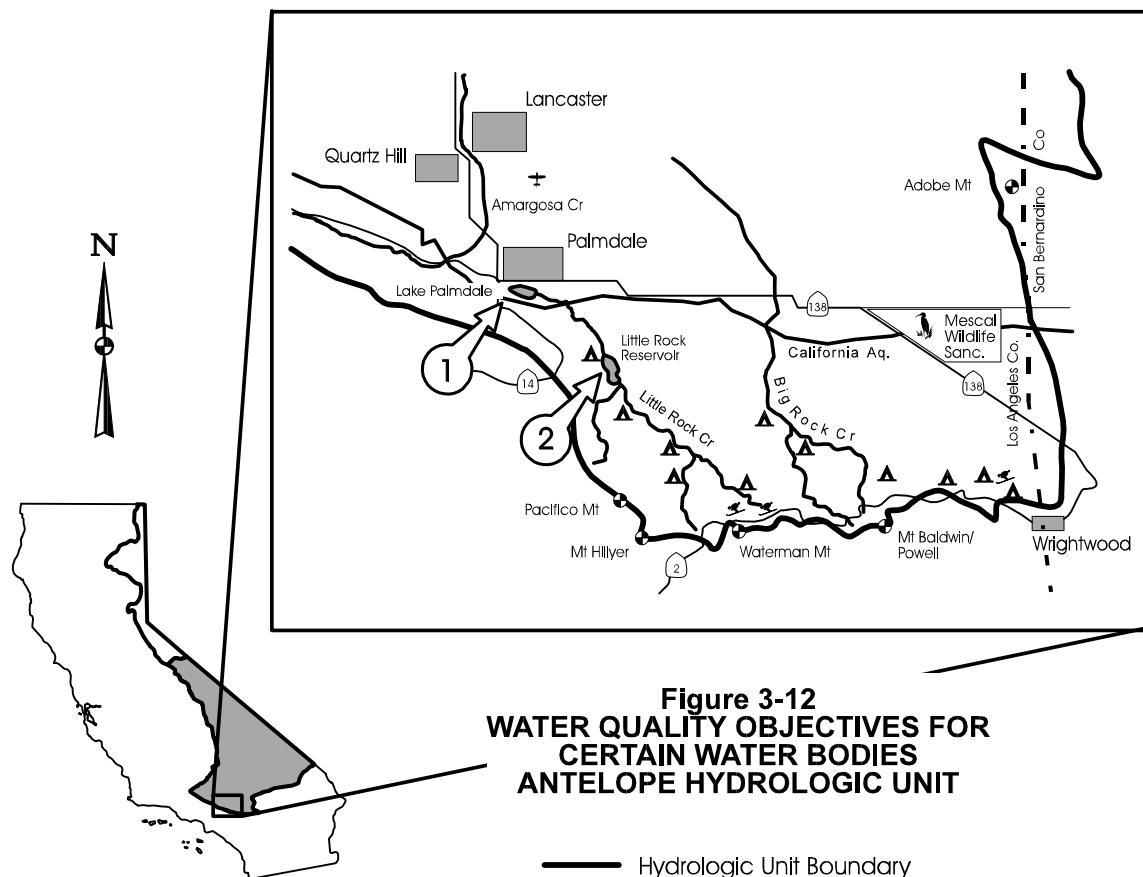


Table 3-20
WATER QUALITY OBJECTIVES FOR CERTAIN WATER BODIES
MOJAVE HYDROLOGIC UNIT

See Fig. 3-13	Surface Waters (Stations 1 & 2) Ground Waters (Stations 3, 4, 5, & 6)	Objective (mg/L)(Maximum)	
		TDS	NO ₃ as NO ₃
1 ^a	West Fork Mojave River	245	6
2 ^a	West Fork Mojave River (at Lower Narrows)	312	5
3 ^b	Mojave River (at Barstow)	445	6
4 ^b	Mojave River (upstream side of Waterman Fault)	560	11
5 ^b	Mojave River (upstream side of Calico-Newberry Fault)	340	4
6 ^b	Mojave River (just upstream of Camp Cady Ranch Building Complex)	300	1

^a Objectives for reaches of the Mojave River which normally flow underground, but under high flow conditions will surface.

^b Objectives for reaches of the Mojave River which flow underground in a confined channel.

Figure 3-13
WATER QUALITY OBJECTIVES FOR CERTAIN WATER BODIES
MOJAVE HYDROLOGIC UNIT

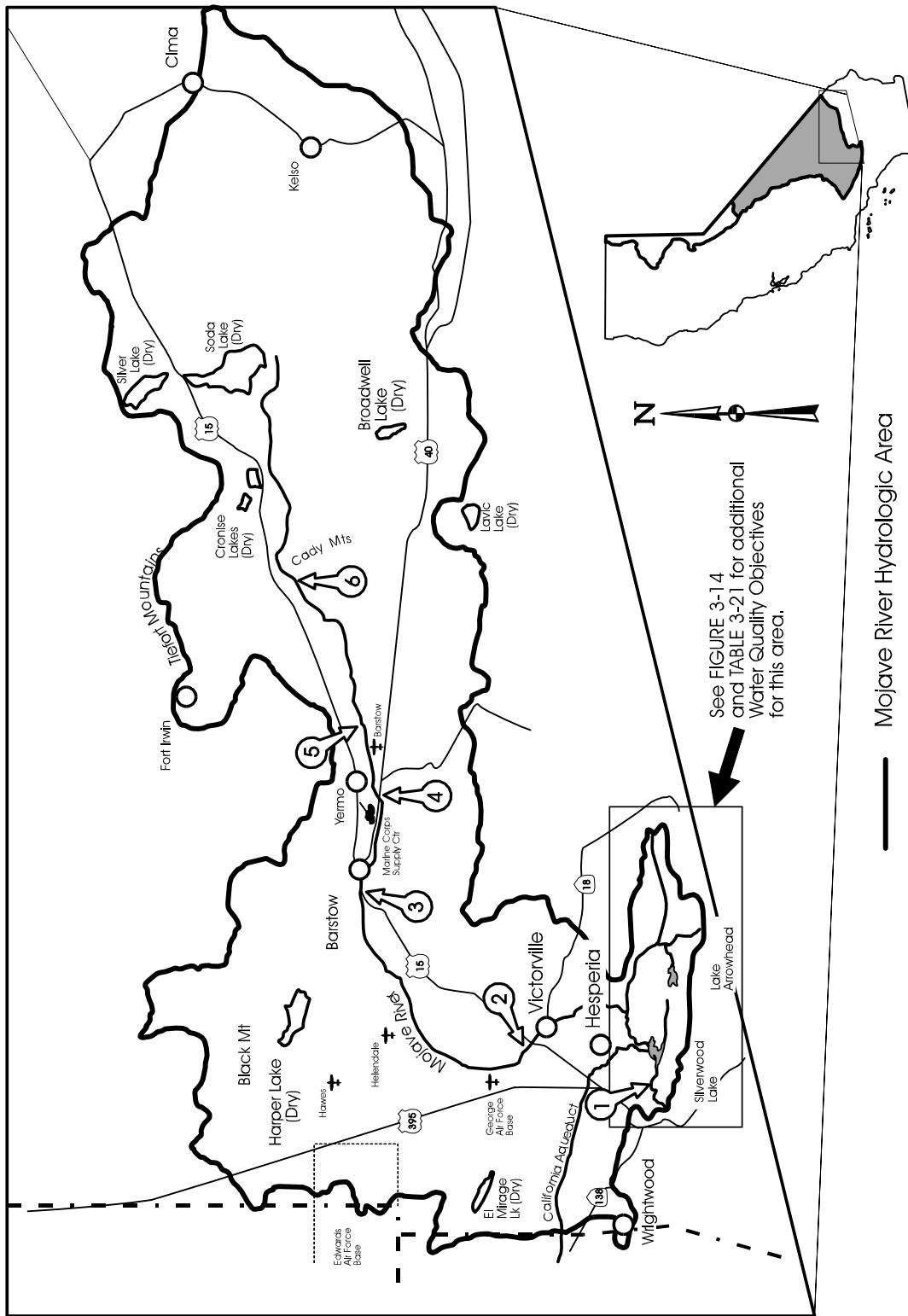


Table 3-21
WATER QUALITY OBJECTIVES FOR CERTAIN WATER BODIES
SAN BERNARDINO MOUNTAINS AREA, MOJAVE HYDROLOGIC UNIT

See Fig. 3-14	Surface Waters	Objective (mg/L) ^{1,2}							
		TDS	Cl	SO ₄	F	B	NO ₃ -N	N	PO ₄
1	Arrowbear Lake	81 139	6.2 10.0	3.9 8.1	0.12 0.21	0.12 0.25	-	1.0 2.0	0.13 0.14
2	Green Valley Lake	100 134	9.0 12.0	3.5 5.8	0.12 0.20	0.07 0.14	-	1.0 2.0	0.11 0.16
3	Lake Arrowhead	78 107	7.7 9.1	2.4 3.0	0.21 0.40	0.04 0.05	-	-	-
4	Hooks Creek	83 127	6.0 10.0	5.6 13.0	0.12 0.17	0.03 0.06	0.8 2.5	-	0.04 0.05
5	Deep Creek (below Lake)	83 123	9.1 16.0	1.3 4.9	0.10 0.19	0.05 0.07	0.2 0.6	0.3 0.7	0.05 0.13
6	Deep Creek (at Forks Dam)	184 265	10.6 16.0	31.3 55.0	1.66 2.60	0.10 0.19	0.6 2.0	-	-
7	Twin Peaks Creek	86 100	20.4 33.0	5.6 6.0	0.07 0.09	0.02 0.03	0.3 0.4	-	-
8	Grass Valley Creek (above Lake)	103 136	11.1 15.0	4.6 8.1	0.12 0.26	0.02 0.04	0.6 1.8	-	-
9	Sheep Creek (at Allison Ranch)	56 72	6.0 7.8	3.4 6.9	0.13 0.22	0.01 0.02	0.3 1.3	-	-
10	Seeley Creek (Valley of Enchantment)	112 141	21.1 25.0	10.5 13.0	0.17 0.28	0.04 0.07	-	-	-
11	Houston Creek (above Dart Creek)	153 170	13.0 15.0	-	-	-	-	-	-
12	Dart Creek (below Moon Lake)	120 159	10.9 14.0	4.0 7.0	0.16 0.25	0.07 0.15	-	-	-
13	Lake Gregory	87 95	11.0 12.0	5.3 7.7	0.17 0.30	0.30 0.30	-	-	-
14	Sawpit Creek	114 145	7.9 9.0	9.1 13.0	0.17 0.22	0.01 0.03	-	-	-
15	W.F. Mojave (above Silverwood Lake)	219 336	8.4 13.0	34.0 53.0	0.26 0.40	0.02 0.05	-	-	-

Table 3-21(continued)
WATER QUALITY OBJECTIVES FOR CERTAIN WATER BODIES
SAN BERNARDINO MOUNTAINS AREA, MOJAVE HYDROLOGIC UNIT

See Fig. 3-14	Surface Waters	Objective (mg/L) ^{1,2}							
		TDS	Cl	SO ₄	F	B	NO ₃ -N	N	PO ₄
16	E.F. of W.F.Mojave	<u>140</u> 200	<u>12.7</u> 22.0	<u>10.7</u> 17.0	<u>0.23</u> 0.40	<u>0.06</u> 0.10	-	-	-
17	Silverwood Reservoir	<u>220</u> 440	<u>55</u> 110	<u>20</u> 110	-	-	-	-	-
18	Mojave River (at Forks)	-	<u>55</u> 100	<u>35</u> 100	<u>1.5</u> 2.5	<u>0.2</u> 0.3	-	-	-
19	Mojave River (at Victorville)	-	<u>75</u> 100	<u>40</u> 100	<u>0.2</u> 1.5	<u>0.2</u> 0.3	-	-	-

¹ Annual average value/90th Percentile Value

² Objectives are as mg/L and are defined as follows

B	Boron	SO ₄	Sulfate
Cl	Chloride	PO ₄	Dissolved Orthophosphate
F	Fluoride	TDS	Total Dissolved Solids (Total Filterable Residue)
N	Nitrogen, Total		
NO ₃ -N	Nitrogen as Nitrate		

Figure 3-14
WATER QUALITY OBJECTIVES FOR CERTAIN WATER BODIES
MOJAVE HYDROLOGIC UNIT
SAN BERNARDINO MOUNTAINS AREA

